Chapter 5

Prevention Strategies

Pushing Out our Borders

Leveraging of Resources

Relationships between the USCG and its sister-agencies in the Department of Homeland Security, primarily the Customs and Immigration services now unified in the U.S. Bureau of Customs and Border Protection (CBP) agency, were already in existence prior to September 11, 2001. These relationships continued to build prior to forming the HLS Department on March 1, 2003, and are now further facilitated by our co-location within the HLS Department. CBP and the USCG perform many similar missions, with slightly varied end-goals. Our efforts have focused on understanding the respective missions and how to best link them together to jointly accomplish our common goal of providing a safe and secure seaport well protected from acts of terrorism. To date, we are better utilizing the crew and cargo screening mechanisms in place at CBP to feed our vessel, crew, and cargo arrival screening process. This is a tremendous force multiplier for the USCG locally and nationally, and there will be continued focus on further integration in the future.

A professional exchange with Transport Canada Office of Marine Safety (TCMS) inspectors has facilitated over the years a better understanding of each other's inspection procedures and improved regional Port State Control (PSC) cooperation. The main objective for the PSC exchange between MSO Puget Sound and TCMS is to enhance safety by harmonizing vessel movement control enforcement efforts in the "shared waters" of the two nations. Other results have been the improvement in sharing of program information and communicating between MSO Puget Sound and TCMS field inspectors.

In 2001, a U.S./Canadian Disabled Vessel Matrix was developed and released to all VTS, MSO, and Search and Rescue watchstanders on both sides of the border, to provide a clear communication guide for handling vessels with reduced propulsion capabilities. As a result of this matrix, MSO Puget Sound continues to receive more timely information to make informed decisions about disabled vessels in our shared waters.

New Maritime Security Requirements

The Maritime Transportation Security Act of 2002 (MTSA), the new security amendments to the International Convention for the Safety of Life at Sea 1974 (SOLAS), and its complementary International Ship and Port Facility Security Code (ISPS) strengthen and add additional protective layers of defense to our Nation's port security.

MTSA: Designed to protect the nation's ports and waterways from a terrorist attack. Landmark legislation that requires area maritime security committees, security plans for facilities and vessels that may be involved in a transportation security incident

ISPS: First multilateral ship and port security standard ever created. Implementation scheduled for 2004; requires all nations to develop port and ship security plans.

Regulations specify requirements for:

- Security assessments, development of security plans, implementation of measures to address access control, security monitoring, and physical, passenger, personnel, baggage and cargo security.
- Annual exercises and/or drills
- Designation of security personnel for each vessel or facility
- Installation of Automatic Identification System (AIS), equipment that automatically sends detailed ship information to other ships and shore-based agencies

Who The Regulations Will Apply To: The regulations focus on those entities that may be involved in a transportation security incident, including various tank vessels, barges, large passenger vessels, cargo vessels, towing vessels, offshore oil and gas platforms, and port facilities that handle certain kinds of dangerous cargo or service the vessels listed above.

WHEN:

- July 1, 2003 Temporary Interim Rules published; Effective date of regulations
- July 23, 2003 Public Meeting in Washington, D.C.
- July 31, 2003 Deadline for submission of written comments
- October 2003 Projected publication of Final Rule
- November 2003 Effective date of Final Rules (30 days from publication)
- Dec. 31, 2003 Deadline for submission of security plans
- July 1, 2004 International and domestic deadline for implementation of MTSA regulations & ISPS requirements.

WHERE: Ports of all sizes throughout the country and the world

Maritime Transportation Safety Act (MTSA) Regulations

On July 1, 2003, the U.S. Department of Homeland Security announced the publication of security regulations today requiring sectors of the maritime industry to implement measures designed to protect America's ports and waterways from a terrorist attack.

The new MTSA security regulations cover vessels and facilities operating on or adjacent to waters subject to the jurisdiction of the United States and are split into six separate parts. Following a general section that discusses general requirements and definitions, each of the sections focuses on a specific segment of the marine industry: ports, vessels, facilities, and outer continental shelf facilities. A final regulation addresses the installation of Automatic Identification Systems (AIS). These regulations are part of the new Subchapter H of Title 33 of the Code of Federal Regulations (CFR), except for AIS, which amends several sections of the CFR.

The regulations have common elements, including:

Security Officers & Training for all Personnel

Requires the designation of an individual who will be responsible for the vessel or facility security program, outlines the qualifications for security officers, and requires all personnel to have training so that they are ready and able to implement the security plan.

Security Assessments and Plans

Requires owners and operators to assess the vulnerabilities, and develop plans that may include passenger, vehicle and baggage screening procedures; security patrols; establishing restricted areas; personnel identification procedures; access control measures; and/or installation of surveillance equipment.

GENERAL – Parts 101 & 102

Alternative Security Programs/Equivalencies

Provides flexibility and encourages innovation by allowing industry to submit, for Coast Guard approval, alternative security programs that provide an equal level of security as required in the regulations.

Maritime Security Directives

Gives the Coast Guard the authority to issue supplemental directives that require the implementation of specific security measures within the context of security plans, allowing the government to communicate sensitive security information to industry

Increased threat = increased security

Establishes three levels of security, which align with an international system, and correspond to the Homeland Security Advisory System. These levels allow industry to increase and decrease security measures based on threat conditions, providing reasonable and effective security.

Communication of Maritime Security Information

Requires the Coast Guard to communicate information on threats to the appropriate members of maritime industry and other authorities in the port.

PORTS – Part 103

Federal Maritime Security Coordinators

Designates the Coast Guard Captains of the Port as Federal Maritime Security Coordinators, giving them the authority to oversee and direct the necessary activities of increasing security of our ports.

Area Maritime Security Committees (AMS)

Establishes Area Maritime Security Committees, made up of members of other federal, state and local agencies, industry and others, to assess the specific vulnerabilities in each of our 361 ports and develop plans for very complex and diverse security requirements within the port areas.

Risk Assessments and Security Plans

Requires the AMS Committees to conduct risk assessments, building on preliminary assessments already conducted in 47 key ports, which examine the threats, consequences, and vulnerabilities of the port. Details the elements of Area Maritime Security Plans, including requiring an annual exercise.

VESSELS – Part 104

Examples of vessels most directly impacted by the new regulations

- Small cruise ship traveling from Chicago to Montreal
- SOLAS-certified cargo ship carrying grain traveling from Jacksonville to New York
- Container vessel carrying cargo from New Orleans to San Juan
- Container vessel carrying cargo from Hong Kong to Los Angeles
- Barge carrying auto part containers traveling from Seattle to Vancouver
- Cruise ship on a Caribbean voyage
- Dinner boat on the Chesapeake Bay carrying more than 150 people
- Gaming boat on the Mississippi
- Ferries operating in Puget Sound, Washington
- Barge carrying home heating oil on the Hudson River
- Tanker carrying liquefied natural gas
- Supply vessel heading to an offshore oil rig
- Towing vessel pushing an oil barge on the Mississippi River

FACILITIES – Part 105

Examples of maritime facilities most directly impacted by the new regulations

- Facility that handles dangerous cargo, including oil, chemicals, and explosives
- Facility that services vessels that carry more than 150 passengers
- Facility that receives vessels on international voyages, including vessels solely navigating the Great Lakes.

OUTER CONTINENTAL SHELF FACILITIES – Part 106

Examples of offshore oil & gas platforms most directly impacted by the new regulations

- Oil rig that produces more than 100,000 barrels of oil per day
- Platform that produces more than 200 million cubic feet of natural gas per day
- Platform that is consistently manned by more than 150 people

AUTOMATIC IDENTIFICATION SYSTEMS

The regulations require the installation of Automatic Identification System (AIS) on certain vessels. AIS equipment is a system that automatically sends detailed ship information to other ships and shore-based agencies. Installing AIS equipment on certain vessels traveling in our waters will allow comprehensive, virtually instantaneous vessel tracking and monitoring, increasing security and safety in our shipping channels.

Examples of vessels required to install an Automatic Identification System:

- Ships on an international voyage
- Large passenger vessels
- Other commercial vessels operating in a Vessel Traffic System

Revised Notice of Arrival Requirements

The revised Notice of Arrival (NOA) requirements came fully into effect on April 1, 2003. This regulatory requirement is fully utilized to assist in the effective security and Port State Control screening processes in place within the Puget Sound area.

The basic requirements of the NOA regulations enable a much more effective vetting process providing more time to review before arrival and more detailed information on the vessel's recent operating history, cargo, crew, and other items of interest. This information is directly applied to the robust screening process established for vessels entering the Strait of Juan de Fuca and Puget Sound.

Vessel Screening

The vessel screening process provides a robust analysis based on a number of safety and security inputs as well as the information obtained from the NOA requirements. This information is collectively analyzed to help identify vessels of interest that should be considered for a Port Security or Port State Control boarding.

Figure 5-1

Year	*2001*	*2002*
Vessels Screened (US flag)	320	995
Vessels Screened (foreign flag)	554	1854

These processes of screening for Port Security and Port State Control have been combined to provide a single point of contact for industry for either boarding type.

Required Pre-Arrival Tests

Pre-arrival tests of the steering equipment and propulsion system are required of all deep-draft vessels before entering the waters of the United States. These tests help ensure at the time the vessel enters U.S. waters that adequate steering and propulsion are available to safely navigate to the intended destination. Failure or inability to perform these tests must be reported to the Captain of the Port Puget Sound prior to entry.

Traffic Separation Scheme and Vessel Traffic Service

The waters of the Strait of Juan de Fuca and Puget Sound have internationally adopted Traffic Separation Schemes (TSS). These TSSs are supervised by the Cooperative Vessel Traffic Service, a joint effort of the U.S. and Canadian governments for managing vessel traffic in the adjacent waters. The two Canadian Vessel Traffic Centers at Tofino and Victoria work hand in hand with the Puget Sound Vessel Traffic Service in Seattle. The three centers communicate by computer links and dedicated telephone lines to pass advisories of vessels passing from zone to zone.

Vessel Traffic Service

Traffic Monitor and Control

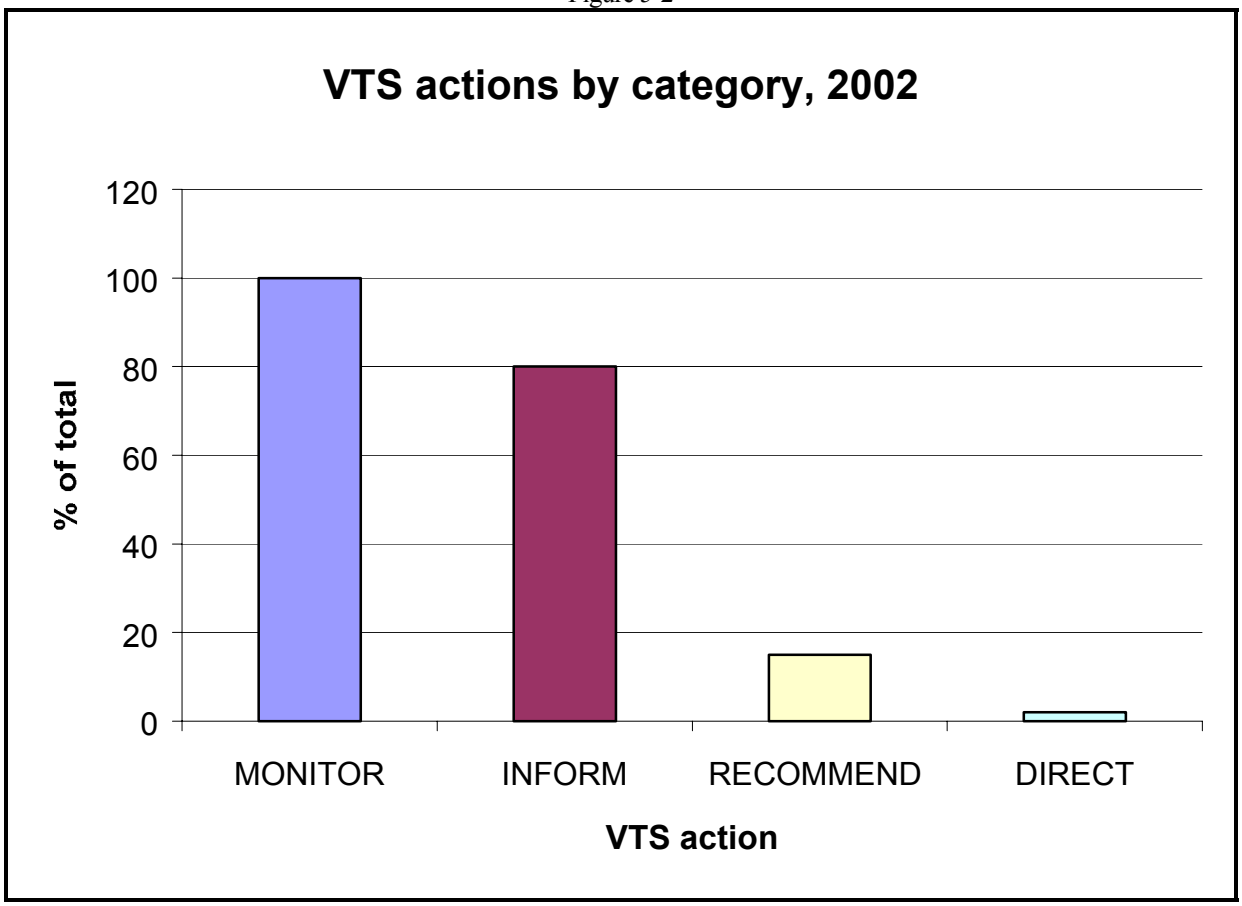
From the "JA" buoy at the entrance of the Strait of Juan de Fuca, vessels must transit from 70 to 160 nautical miles within COTP Puget Sound Zone before reaching their destination. This extended transit distance, mostly within 5 miles of the shore, provides an additional risk factor not present in most other ports, but this risk factor is mitigated by the deep and wide waterways present.

There are four sectors in the Vessel Traffic Service Puget Sound area of responsibility.

- Straits: The Strait of Juan De Fuca from longitude 124 40W at the western end to the "SA" Traffic Separation Buoy by the New Dungeness Spit at the eastern end. Victoria Traffic handles traffic north of Race Rocks.
- North: The southern end of the Strait of Georgia at Patos Island to the north, East of New Dungeness Spit and South to the lower portion of Admiralty Inlet at Bush Point. Also, all traffic east of Whidbey Island.
- South: Admiralty Inlet at Bush Point to the north to Commencement Bay to the south.
- Deep South: South of Commencement Bay.

The around-the-clock mission of the sector operator provides the real-time oversight of vessel traffic movement in our area. The sector operator must take into account the factors being experienced by the vessel operator and the consequences of those factors. Actions of the VTS sector operator vary from monitoring traffic to providing specific directions to a vessel operator.

Figure 5-2



All traffic is monitored, and as navigational situations develop, vessels may be given advisories on other traffic and other factors. The sector operator makes recommendations to vessel operators infrequently. In rare cases, the sector operator may issue a direction to a vessel operator as to where they should navigate their vessel

Other Prevention Strategies

VTS 101

Many military vessel crews operate infrequently in Puget Sound and are not familiar with these waters. This makes their transits a higher risk evolution than many other vessel transits. VTS initiated a training familiarization program with the U.S. Navy, called VTS 101. The program acquaints military navigation teams with the VTS operation and provides them with local knowledge and insight for working with the maritime community while underway in our area of operation. At the request of the U.S. Navy, VTS developed VTS 102, a two-day extended training program, using the VTS computerized training simulator. This course provides more in-depth instruction on regulations and procedures.

Figure 5-3

VTS Course Participation

VTS 101 (2 hours):	290 U.S Navy submariners 79 U.S. Navy surface unit personnel 47 local Coast Guard vessel personnel
VTS 102 (2 days):	46 U.S Navy submariners

USCG/VTS – USN Submarine Surface Operations Symposium:
A series of lectures, discussions, and observation of training procedures and a review of operational platforms was conducted over a full day. Over 400 U.S. Navy personnel, 15 Coast Guard personnel, and a Puget Sound Pilot participated.

Recreational Boaters
The VTS area of responsibility is host to hundreds of boats involved in organized marine events, and thousands of pleasure boaters. The level of expertise of these boaters varies greatly. However, many have a serious lack of knowledge of their responsibilities under the Rules of the Road and VTS regulations, as well as how VTS participants use the traffic scheme and how to safely interact with deep draft vessels. This often leads to near misses with larger commercial traffic. In order to reduce the risk of collisions and the loss of life or damage to the environment, VTS initiated a boating safety program geared to the recreational boater. This program provides guidance on how a they or operators of other small craft should operate when near larger vessels. A pamphlet, "Recreational Boaters' Guide" was created and over 10,000 were distributed in the first month of printing. A similar guide, directed toward operators of small commercial vessels, has also been published. Along with this a series of lectures were given to 85 teachers of the "Windworks" sailing school. Members of the VTS crew have made several speaking appearances at various yacht clubs to promote this recreational boating safety effort. Another part of this effort is Operation Northern Make Way**.** The VTS has teamed up with the local Coast Guard Auxiliary to provide on-the-water education and enforcement to small commercial and recreational vessel operators who operate in or near a Traffic Separation Scheme. During targeted times of high recreational boater or fishing traffic, the program prepositions the Auxiliary craft in a chokepoint area to conduct education when deep draft are not present, and to clear the way just before they do arrive. The program is aimed at decreasing the number of incidents of small craft impeding deep draft vessels. Haro Strait (Turn Point whale watching) and central Puget Sound (all citizens fisheries) were targeted areas in 2001.

Television Program
The weekly "Captain's Log" television show presented a series of five-minute boating safety lectures hosted by a VTS member, who has since become a regular member of the cast.

Whale Watching Association Liaison
VTS has been the liaison between the Canadian/U.S. whale watching association and the Canadian/U. S. Coast Guards, Transport Canada, B.C. Coast Pilots, and Industry. Presentations on the safe interaction with deep draft vessels were given at two separate meetings.

Pilot Association Liaison
VTS has played a significant role in coordinating the efforts of both the Puget Sound Pilot Association (U.S.) and British Columbia Coast Pilots (Canada) in the development of standards of

care and the review of traffic procedures. Puget Sound Pilots also help train VTS personnel during familiarization ship rides. A pilot traffic center visit program was re-instituted to acquaint them with the center and allow them to sit in on a traffic sector.

Washington State Ferries Liaison

VTS works closely with the biggest user of the VTS system. VTS has been invited to their Masters meetings and VTS personnel gain much from the shipside program on the ferries.

Harbor Safety Committee (U. S.) and Pacific Coast Marine Review Panel (Canada) Liaison

Both of these organizations represent government, industry, and waterway stakeholders. VTS works closely with them in developing standards of care, getting the word out, and receiving input in on various issues.

Turn Point

In conjunction with the Canadian CG and B.C. Coast Pilots, a Standard of Care that established safe meeting procedures and a minimum distance from shore for vessels over 100 meters was established for the Turn Point area (Intersection of Haro Strait and Boundary Pass). The purpose of these measures is to reduce the possibility of a vessel going aground or having a collision in that area. Figure 5-4 shows effectiveness of the minimum distance provision of the standard of care. Out of 4,805 transits around Turn Point by vessels greater than 100 meters, only five transits have made an incursion inside the 3 cable (600 yard) boundary (99.9% effective). In three of those five transits, the incursion was made to avoid small craft in the area. Figure 5-5 shows the effectiveness of the vessel interaction provision of the standard of care. Out of the 325 meeting situations at Turn Point, only12 failed to comply with the Standard of Care (96.3% effective). Of those 12, in no case did the vessels come within 900 yards of one another.

Figure 5-4

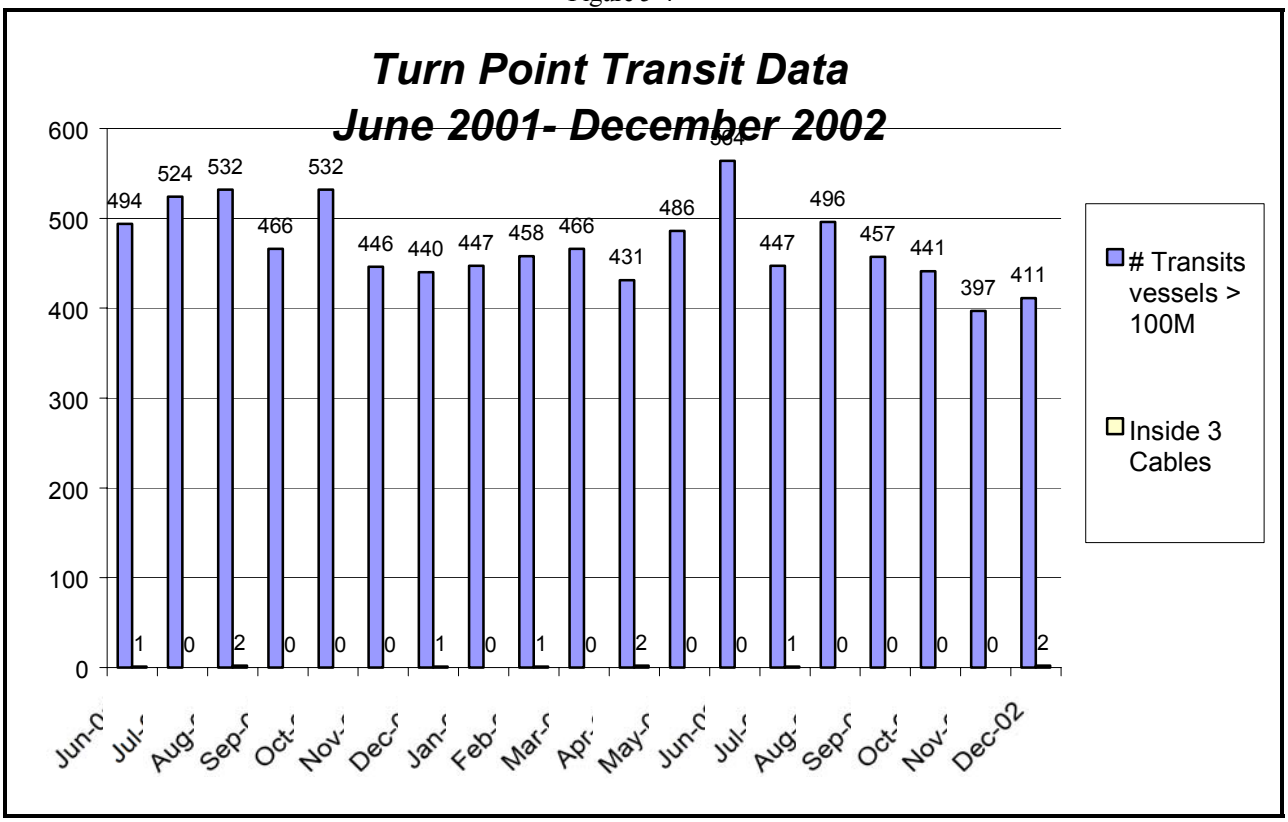
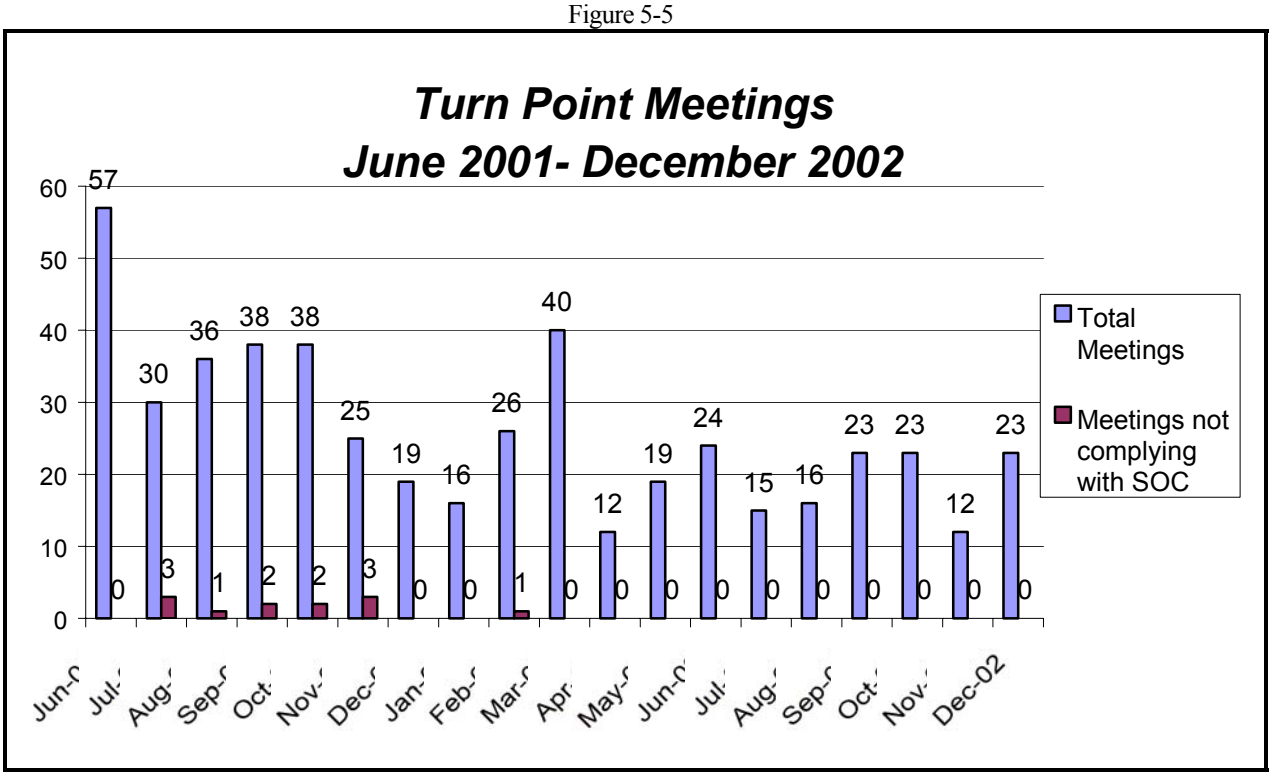


Figure 5-5



Boarding and Inspection

Domestic Vessel Inspection

The USCG administers navigation and vessel inspection laws and rules, and regulations governing marine safety. The USCG is tasked with inspecting the vessels to which those laws apply. Application of statutes to a particular vessel is based upon many factors, including: trade, route, length, tonnage, and/or number of passengers. Most statutes establish general requirements for inspection and authorize the USCG to prescribe specific standards by regulation. However, certain requirements for vessel standards and procedures are contained within the statute itself.

46 U.S.C. 3306 and 3703 direct the Secretary of the Department of Transportation (SECDOT) to prescribe regulations to carry out these requirements. SECDOT has delegated authority to the Commandant, U.S. Coast Guard to administer certain navigation and inspection laws. The Commandant accomplishes this by prescribing regulations published in Titles 33, 46 and 49 of the Code of Federal Regulations (CFR). These regulations incorporate international laws to which the United States is signatory (see paragraph D), as well as various classification society and industry technical standards.

Coast Guard Concerns

Vessel inspection policy is developed with the intention of protecting individuals, their private property, and the marine environment from the consequences of incidents involving materially unsafe vessels. Inspections of vessels are generally made while they are not engaged in navigation; however, at times it is more conducive to vessel owners and operators to schedule an in-water inspection, such as an inspection for certification or mid-period inspection, during a leg of a vessel's voyage. OCMI's should take advantage of underway inspections as they allow the inspector to witness the operation of a vessel's machinery and other equipment, as well as observing the conduct of the licensed crew. The inspection of a vessel is intended to determine its reasonable, probable compliance with published minimum safety standards over a projected period of time. The issuance of a Certificate of Inspection (COI) attests to that reasonable probability.

The USCG's objective is to administer vessel inspection laws and regulations so as to promote safe, well-equipped vessels that are suitable for their intended service. It is not the USCG's intent to place unnecessary economic and operational burdens upon the marine industry. Inspections performed are tabulated below:

Figure 5-6

Inspection Type	*2001*	*2002*
Inspections for Certification	155	269
Reinspections	198	275
Drydock Exams	141	149
New Vessel Construction Exams	409	193

Inspection of DUKW Operations

Because of their unique design, these World War II vintage vessels are closely inspected to ensure that operations are carried out in the safest manner possible. Following the sinking of a DUKW in Arkansas in 1999, inspectors at the MSO led the local operator in the development of a comprehensive Operations and Training Manual for the local six vessel fleet. This Manual was reviewed and approved by the Domestic Vessel Branch and is specifically referenced on the vessels' Certificates of Inspection.

Inspection of Tank Vessels

MSO Inspectors oversee the administration of the Critical Area Inspection Program for aging tank ships, Letter of Compliance examinations for foreign tank vessels, SOLAS and International Oil Pollution Prevention exams and certificate issuance,

As new tankers with double hulls, twin engine rooms, and complex design are prepared for service in the Puget Sound zone, MSO personnel have familiarized themselves with each vessel's engineering plant, navigation, maneuverability and pollution prevention capabilities before entry into through plan review and shipyard visits.

New Vessel Construction Inspection, Oversight and Plan Review

New construction inspection, oversight and plan review are important risk mitigation tools with effects that extend beyond in Puget Sound. Many of the vessels built in this zone are delivered for service in other zones on the west coast and throughout the country. Identification and resolution of problems at an early stage saves the industry time and expense in future maintenance and repair costs, as well as loss of revenue. It also ensures that the public is provided with a vessel that will provide safe means of transportation. Reviews of plans for alterations, modifications and refurbishments to the hull and systems for the existing local fleet were also completed.

Port State Control Boardings

The Port State Control (PSC) program targeting matrix is centrally managed by USCG Headquarters and uses data from all Marine Safety Offices in the United States, including Guam and Puerto Rico, to determine those vessels of highest risk to marine safety. This matrix takes into account the compliance record of the vessel, the owner/operator, the classification society, and the flag state to provide an assessment of the risk that the vessel poses to U.S. waters. All vessels arriving in a U.S. port within the zone are subjected to this safety assessment that results in the assignment of a PSC boarding priority level. The boarding priority levels assigned are as follows:

Priority I - Those vessels that due to their high-risk rating must be boarded before being allowed to transit U.S. waters east of Port Angeles.

Priority II - Those vessels that should be boarded at their U.S. destination, prior to starting cargo operations.

Priority III - Those vessels that may be boarded at their U.S. destination.

Priority IV - Those vessels that do not require a boarding.

Vessels targeted for a PSC boarding are examined for crew competency and compliance with international conventions, as well as U.S. laws and regulations.

Figure 5-7

Foreign Vessel Arrivals By Priority Ranking

Priority	1999	2000	2001	2002
Priority I	11	16	10	7
Priority II	293	264	220	271
Priority III	933	927	737	772
Priority IV	784	879	846	804
Total	2021	2086	1813	1854

Figure 5-8

Port State Control Boardings

Priority Rank Year	1999	2000	2001	2002
Priority I	11	16	10	7
Priority II	282	264	220	271
Priority III	142	90	103	138
Priority IV	53	20	11	9
Total	488	391	344	425

Many of vessels arriving in the Puget Sound region make repeated port calls during the year, each vessel of which is considered "distinct". In 2001 there were 747 distinct vessels. In 2002 there were 1059 distinct foreign vessels, and MSO Puget Sound boarded nearly 100% of the targeted vessels for PSC safety exams, or over 45% of the vessels arriving to the Puget Sound Region during the course of the year. The vessels not boarded by MSO Puget Sound had been recently boarded by other USCG Marine Safety Offices.

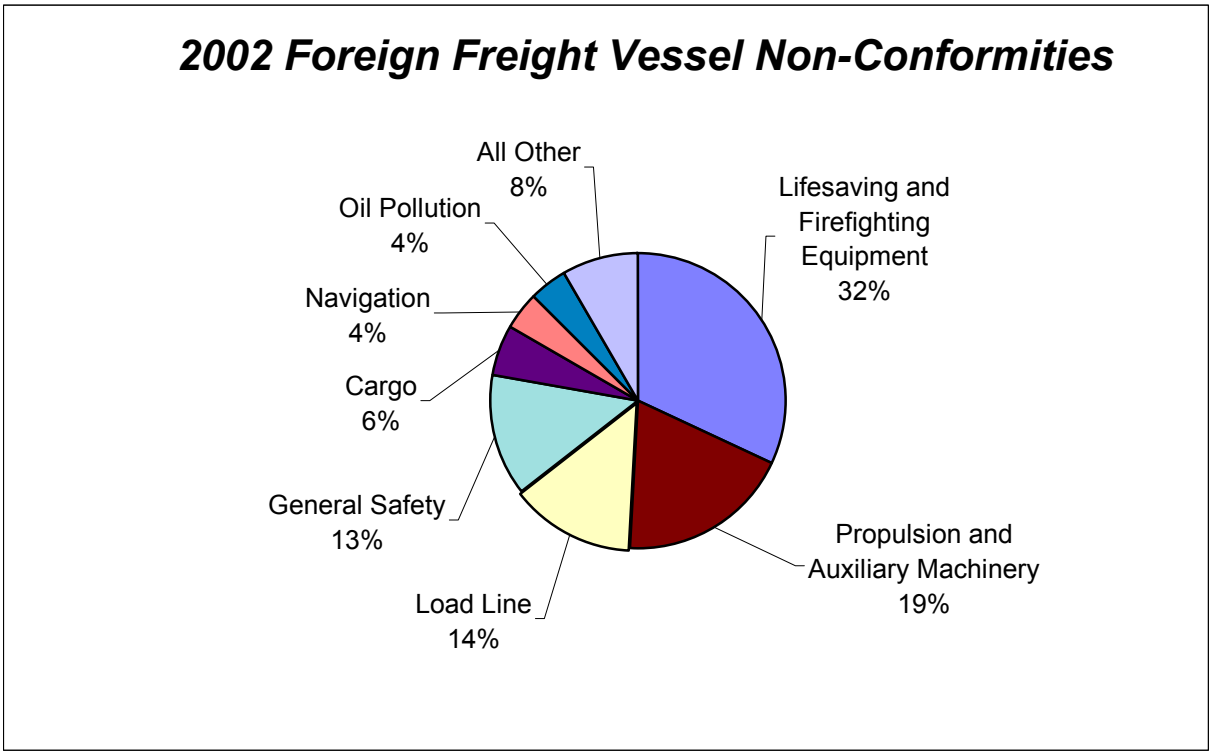
Figure 5-9

Distinct Vessel Arrivals/Boarding Ratio

Year	2000	2001	2002
Distinct Vessel Arrivals	867	747	1059
Boardings	391	344	425
% Distinct Foreign Vessel Arrivals Boarded for PSC Exam	45%	46%	40%
% of Targeted Priority I and II Vessels Boarded	100%	100%	100%

The goal of the PSC program is to mitigate the risks posed by foreign flagged vessels to the marine environment through routine boardings of foreign flagged vessels to verify compliance with safety and pollution prevention regulations. In 2002 the most frequent problem identified during routine PSC safety exams involved inadequate firefighting and/or lifesaving capabilities and equipment. The following chart breaks down the types of safety and pollution prevention non-conformities identified during routine PSC inspections.

Figure 5-10



Port Security Boarding

The Vessel Security Program was developed to provide a comprehensive vessel vetting system and security-boarding program for deep draft commercial vessels and passenger vessels in the Puget Sound region to determine the need for an underway or dockside security boarding. Both of these types of vessels pose high risks to the port but the issues differ. The Deep Draft Vessel Security program addresses the use of commercial vessel, mainly cargo vessels, as a terrorist instrument. The Domestic Passenger Vessel Security program addresses safety and security issues associated with the transportation of over 28 million passengers that travel on ferries and small passenger vessels in Puget Sound annually.

Inspection of Cruise Ships

The increase in the number of cruise ships calling in Seattle has required that additional resources be committed to the completion of Control Verification Exams. One hundred percent of these required exams have been completed along with significant vessel and terminal security checks. Significant resources have been used to inspect each vessel's security plan calling in Seattle, with attention to the effective integration of terminal and vessel security efforts. MSO Puget Sound has partnered with Coast Guard units in Alaska and Canadian authorities to communicate common security issues, coordinate efforts, and improve methods related to the security of cruise ships and passenger terminals.

Inspection of Fishing Vessels

The Voluntary Dockside Exam Program was developed as an implementation strategy for the Commercial Fishing Vessel Safety Act (CFVSA) of 1988 and started in the fall of 1991. The premise of the program is to offer voluntary non-enforcement oriented vessel examinations, at the convenience of the mariner, while the vessel is at the dock. These examinations are provided without charge to assist fishing vessel owners and operators in complying with the regulations pertaining to their particular vessel.

Figure 5-11

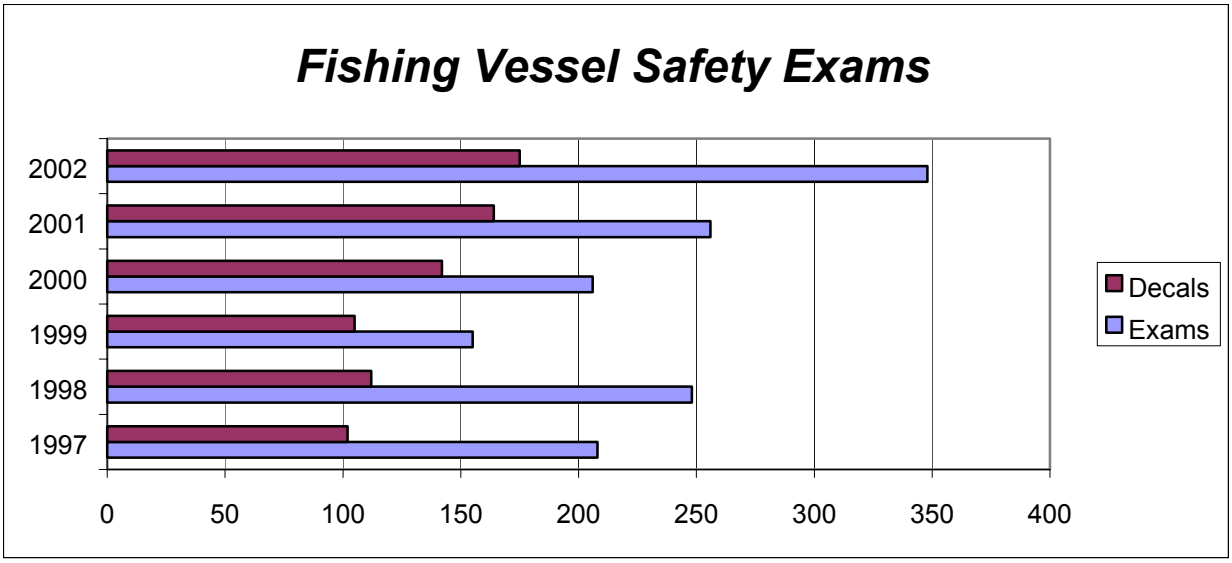
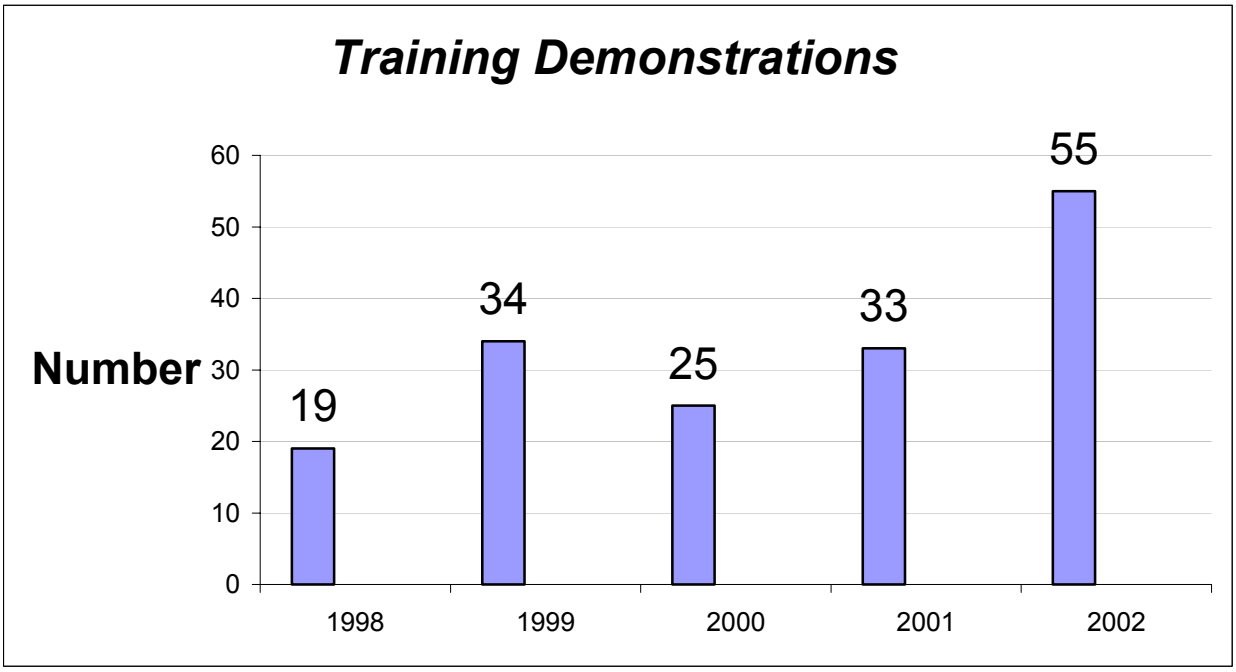


Figure 5-10 shows the number of vessels examined and the number of vessels that were in full compliance that received a safety decal.

Fishing vessel casualties with associated deaths are often linked to a lack proper safety and emergency training. In response to this information, Headquarters funded the development of Damage Control Trainers and Intact Stability Models. These useful training aids have been used along with hands-on demonstrations of use of a fixed fire extinguishing system, a Coast Guard dewatering pump, a Coast Guard helicopter basket, and a SOLAS inflatable liferaft. These demonstrations have been provided in numerous venues from on the dock alongside fishing vessels, to a Coast Guard booth at an expo or maritime festival.

Figure 5-12



To improve the effectiveness and accuracy of boarding officers the Fishing Vessel Safety Branch developed a useful interactive job aid to be used on an electronic Personal Data Assistant (PDA). This is a work in progress, but has been well received by the USCG Boarding Officers. This effort will ensure that vessels boarded at sea that do not have a safety decal will receive a thorough enforcement boarding to ensure compliance with all applicable rules and regulations.

A significant portion of Fishing Vessel Safety funds is expended on promotional items**.** It is often difficult to measure the effectiveness of the distribution items, but marketing of the Voluntary Dockside Exams is an important part of this branch's work. This marketing typically is done through advertising in trade periodicals, Damage Control Kits, informative checklists & pamphlets and other advertising trinkets given away at events such as Fish Expo and other fishing industry trade shows.

Figure 5-13

Promotional Expenses per Fiscal Year

Year	Promotional Budget
1998	$504.00
1999	$964.00
2000	$257.00
2001	$4,131.00
2002	$692.00

Inspecting vessels for prevention of oil spills

MSO Puget Sound helps to prevent oil spills and reduce the volume of oil spilled from vessels and regulated facilities by targeting uninspected commercial vessels for examination of pollution prevention equipment, and for monitoring of bulk liquid transfers to ensure compliance with

pollution prevention regulations. Most of the prevention strategies discussed elsewhere in this chapter are directed toward preventing marine casualties, including those that result in oil spills.

Systematic Improvements

Data Analysis

Improved capture of data in movement controls such as Captain of the Port Orders, Transit Approval Letters, IMO Detentions, and Letters of Deviation has provided an improved source of information for conducting risk assessments.

The Coast Guard completed a vulnerability assessment of all of the waterfront facilities in Puget Sound in the wake 9/11 to identify vulnerabilities and to evaluate how to best use the limited resources of the Coast Guard to improve level of security throughout Puget Sound. The results of this assessment validated the goals and priorities of the programs. The specifics of plans and measures developed were focused on the risk mitigation of the highest risk scenarios and operations.

Standardization of Process

Standardized templates for these movement controls and departmental process instructions have improved consistency in the handling of such events. These instructions provide comprehensive guidance to Command Duty Officers and Watchstanders, facilitating rapid response to casualties, thereby improving our response and enforcement posture

Standard of Care for Propulsion Loss Prevention

A Standard of Care was co-developed by the Captain of the Port Puget Sound and the Puget Sound Steam Ship Operators Association (PSSOA) and distributed to the local marine industry. This SOC included, among other things, guidelines for the testing of ahead/astern propulsion, including actually backing down the vessel, ensuring the proper condition and maintenance of the air start machinery, and ensuring that a licensed engineering officer is in the engine control room while the vessel is in pilotage waters. It goes on to outline the procedures in the event of a propulsion loss including direction to obtain tugs immediately, unless the vessel can be immediately anchored. The Harbor Safety Committee has incorporated this SOC into the Harbor Safety Plan.

Joint USCG / Industry Work Groups

Border Operations

Another concern for MSO Puget Sound is the maritime border with Canada. With the newly formed Bureau of Immigration and Customs Enforcement (ICE) and Bureau of Customs and Border Protection (BCP), the Coast Guard shares responsibility and jurisdiction over the operation of ferries providing international service in Puget Sound. There are five operators, two of which carry vehicles. Three of the five operate year round. MSO Puget Sound personnel have, along with BCP and ICE worked to harden the maritime border in international ferry operations and other areas.

Aggressive outreach with international ferry operators has kept information flowing between the federal agencies and the operators.

Port Security Committees

Port Security Committees have been developed throughout the Puget Sound Region to provide a framework to communicate, identify risks, and coordinate resources to mitigate threats and consequences. These committees consist of other Coast Guard units, DOD, federal, state and local agencies, and owners and operators of vessels and facilities, and other Maritime Transportation Security stakeholders, including port authorities, service providers, labor, and recreational boating communities. These PSCs are to consider and assess a range of possible attacks that would cause disruptions affecting political, economic, public safety, environmental or defense operations.

Three area Port Security Committees (PSC) have been developed in Puget Sound. These are the North PSC, the South PSC to include Seattle and Tacoma, and the Olympic Peninsula PSC. These three PSCs have just begun drafting Port Security Plans (PSP) for their individual areas. All of these plans will be developed as sub-plans to a much larger Puget Sound Area Maritime Security Plan. In addition, an important Washington State Ferry (WSF) Security Committee has been established as described in the next section below.

Washington State Ferries

A joint Coast Guard and WSF Working Group developed a strategy for incorporating the use of lifesaving equipment into contingency planning, optimizing the ability of the response network to safely evacuate the vessels should it become necessary.

WSF is developing an Engine Department Familiarization Program to ensure all Engine Department personnel are adequately familiar with the vessel before assuming a watch. This effort will complement the recently implemented Deck Department Familiarization Program that ensures that all Deck Department personnel are familiarized with a vessel before assuming a watch.

Washington State Ferries and MSO Puget Sound also created a work group in 2000 to address the excessive number of Letters of Deviation issued to the Washington State Ferries for inoperable gyrocompasses. The group, along with a gyrocompass system expert for the Washington State Ferries analyzed the failures of the systems and made recommendations for corrective actions in maintenance and overhaul procedures for the affected systems. As a direct result of this effort, the number of Washington State gyrocompass failures in 2001 decreased over 90% from 2000.

The vulnerability of the Washington State Ferries (WSF) is one of MSO Puget Sound's greatest security concerns. WSF and the Washington State Patrol (WSP) and MSO Puget Sound have established the WSF Security Committee, which provides a forum and framework to systematically identify goals and recommendations concerning security on the Washington State Ferries. This has included refinement of the rapid response information network to be used when specific threats are detected. The WSF Security Committee has met monthly since December 2001 and is developing a long-term security posture while continuing to keep interim measures in place. The committee is developing a plan to further develop the response network for terrorist activity. After the new regulations are published in July of 2003 as a result of Congress passing the Maritime Transportation Security Act, the MSO, WSP and WSF will continue to foster cooperation in ensuring compliance and understanding of the new regulations. MSO Puget Sound will also work with the members of the International Ferry Security Committee in helping the independent passenger vessel operators conducting international ferry runs comply with the new regulations.

Crew Endurance Management Study (CEMS)

The CEMS continues to gain momentum in evaluating the WSF watch system to facilitate improvements to crew endurance management. Many positive changes have been made to the WSF watch schedule including lighting and environmental air quality changes making for an improved working environment. In addition, education on CEMS was provided by Coast Guard R&D Center to select WSF employees who became "coaches" and advocates for CEM. The program continues to gain buy-in from those involved. WSF has completed basic CEM training for all WSF employees.

This year the CEM program has expanded separately from the WSF program to encompass members of American Waterway Operators, who have taken responsibility to implement CEM practices nationwide amongst their membership.

High Speed Craft National Working Group

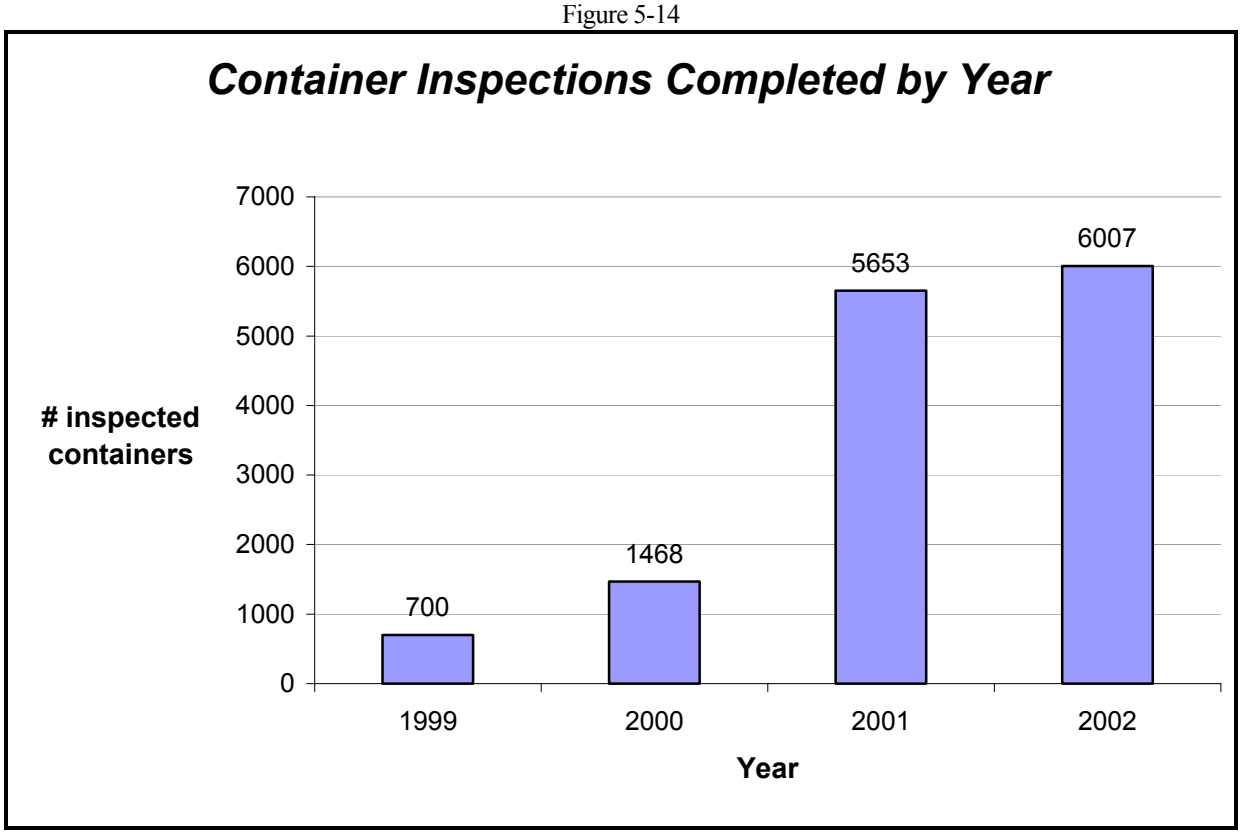
Because this is one of a handful of ports in the nation with high-speed craft (30+ knots) both in operation and under construction, the MSO participated in this forum to develop a bridge team manning assessment tool. This tool enables evaluation of the vessel operation by the operator and the OCMI and will identify appropriate bridge manning levels based on the specific risks encountered in the vessel's route and service.

Port Safety and Security

Container And Hazardous Material Inspections

Marine Safety Office Puget Sound conducts container inspections on an almost daily basis in accordance with Commandant instruction 16616.11, Guidance and Procedures for Conducting Containerized Hazardous Materials Inspections. Under the policy and procedures set forth in the Marine Safety Manual, containers and portable tanks are inspected for compliance with the Hazardous Materials regulations in 49 CFR 171-18- and the Safety Approval of Cargo Containers in 49 CFR 450-453. Figure 5-13 shows yearly inspections completed by container inspectors. MSO Puget Sound is required to complete a minimum of 2,148 containers inspections annually based on Commandant policy. The policy bases the number of required inspections on the number of billets assigned to the unit for this purpose (MSO Puget Sound is assigned three).

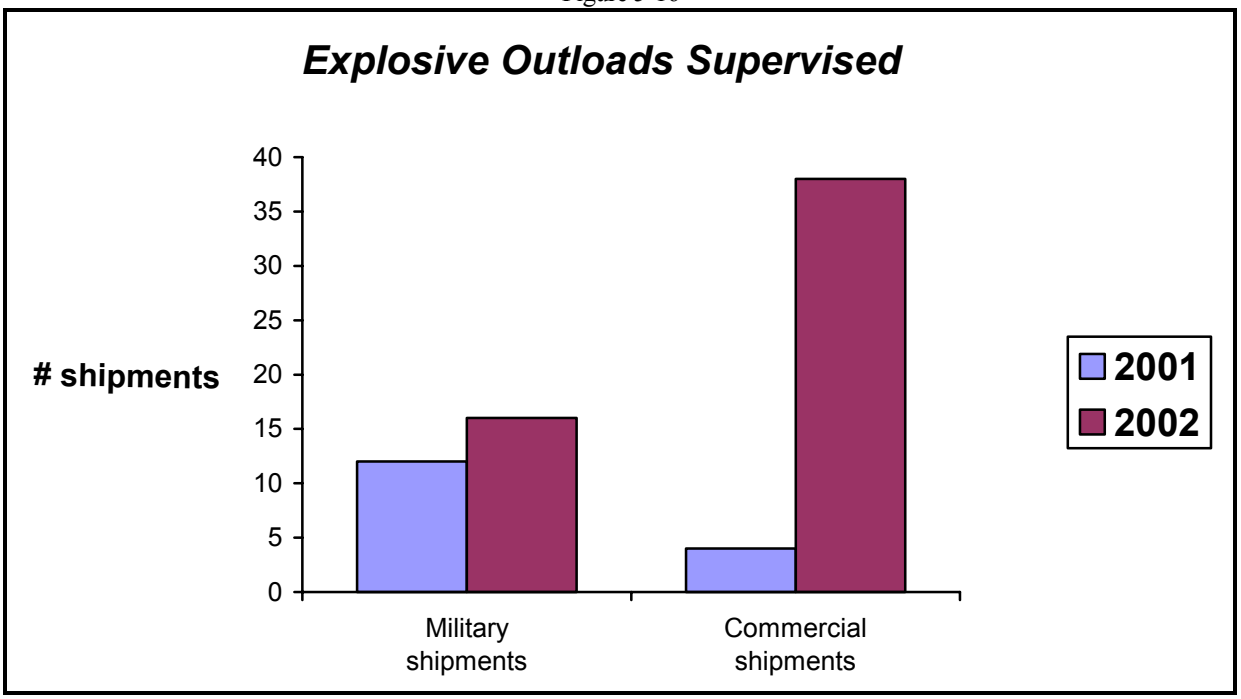
Figure 5-14



The Ports of Seattle and Tacoma receive more than 3.2 million TEUs (Twenty Foot Equivalent Unit containers) annually. This enormous task is shared with U.S. Customs Service, the Federal Railroad Administration, National Cargo Bureau, U.S. Department of Agriculture as well as the Washington State Patrol. Participation of these agencies in strike force operations has acted as a force multiplier that has increased the productivity of the inspection efforts by all agencies.

The safe loading of explosive ordinance may be viewed as a type of force protection for the U.S. Naval vessels involved in the carriage of explosives. The Explosive Load Detail ensures that commodities are loaded properly. Because of the potential for catastrophic detonation if explosives are loaded improperly, the detail supervised explosive commercial outloads that exceeded 1,000,000 pounds net explosive weight (NEW), and all military outloads. The distribution of military and commercial shipments is shown in Figure 5-16.

Figure 5-16



Cruise Ship Terminals

COTP representatives visit passenger vessel terminals on the day of cruise ship arrivals and monitor the movement of passengers, as well as the loading of luggage, vessel stores and the transfer of fuel. They also conduct response drills to test terminal security plans. Teams used drills, inspections, inspection forms and meetings to ensure compliance with regulations and the new NVIC 4-02 guidance at pier 66 and the new Terminal 30 Cruise Ship Terminal.

Facility Security

The COTP's goal to reduce the vulnerability of waterside facilities to potential security threats, by working together with industry and making routine visits to facilities to ensure that a high state of vigilance was maintained. A comprehensive evaluation of the security of Coast Guard regulated facilities was made to determine the vulnerability to potential security threats. These vulnerabilities were then prioritized by threat potential to determine which facilities required increased security-related inspections.

These follow-on inspections involved reviewing the physical and procedural security issues for all designated waterfront facilities. These issues included, but were not limited to, fencing, guards, identification checks, access control, vehicle checks, overall security awareness and proper lighting.

Waterways Management

In March 2002 a Ports and Waterways Safety Assessment was conducted for Haro Strait and Boundary Pass. The purpose of the PAWSA was for U.S. and Canadian Stakeholders to assess current risks and risk mitigations in those waterways, and prepare recommendations to improve these waterways. The final report has been published and the recommendations from the report will be

incorporated into the final submission to IMO in July 2004 for the final approved traffic lanes in Haro/Boundary and the lanes around Discovery Island.

In December 2002, the IMO approved traffic lanes went into affect. These changes impacted over 21 U.S. Charts, and five Admiralty charts. Since implementation, there have been only minor interventions from Canadian and U.S. traffic centers on ensuring compliance with the new lanes. As a result of the modified shipping lanes in the Straits, some local tribes have expressed concern over the impact to traditional fishing areas. In order to work with affected tribes on this issue, a special work group has been formulated to address concerns and come up with mitigation strategies. This group is comprised of local tribes, CG Headquarters, District (m/l), and VTS Puget Sound. In addition, the Haro Strait Working Group was created to look at the proposed lanes in Haro Strait and around Discovery Island. Due to the high amount of concern over the proposed changes as a result of Port Access Route System, implementation of the IMO approved changes in these areas was delayed. This work group has specific tasking in coming up with an agreed upon set of proposed changes to Haro/Discovery Island, which will be submitted to IMO in July 2004.

Marine Events.

Coordinate activities with other Coast Guard units, and event organizers to assess risks posed by marine events, then develop and implement mitigation strategies. Development and use of a branch SOP to standardize handling of permits and events allows consistency and thoroughness in reducing risks.

Major annual recurring events such as Seafair are evaluated after to completion to identify any improvements that can be made to Coast Guard operations.

Safety/Security Zones, ATFP.

Assisted with coordination between Coast Guard District 13, U.S. Navy, and Coast Guard Group Seattle to develop and implement Bangor Security Zone and enforcement policies pre 9/11 that extended the protective areas and authorities for ballistic missile submarines, resulting in improved security.

Post 9/11, developed implementation plans and enforcement policy for 14 USC 91 zones, resulting in improved security for naval vessels throughout the region. In addition, a Temporary Security Zone was established to protect tank ships from potential acts of sabotage or terrorism.

Tribal fisheries

Coordination with Tribes, Puget Sound Harbor Safety and Security Committee (PSHSC), and the Port of Seattle to ensure all are familiar with CG policies on balancing fishing rights with private/commercial navigation safety on waterways. Since 2001, there has been remarkable increased cooperation between all affected stakeholders in reducing the number of net conflict incidents. Since 9/11, the Coast Guard has not been utilizing its on water resources in removing nets. Tribal enforcement officers and the Port of Seattle Police are now the primary "responders" to net conflict incidents where the net(s) are clearly posing a navigation hazard or are illegally tied off to private property.

Civil disobedience

Coordination with Group Seattle, District 13, and other law enforcement agencies to prepare for acts of civil disobedience which had the potential of closing waterways, by developing strategies to keep activities safe, minimize impacts on the Marine Transportation System, promote lawful behavior, and permit appropriate exercise of First Amendment rights. The USCG will continue to communicate expectations with labor and management to promote the above goals.

Examples over the past few years have been the World Trade Organization meeting, PMA lockout, and Kaiser Aluminum strikes. MSO personnel worked with other agencies, and helped keep the events secure and safe while permitting lawful free expression.

Drug and Alcohol Program Inspection

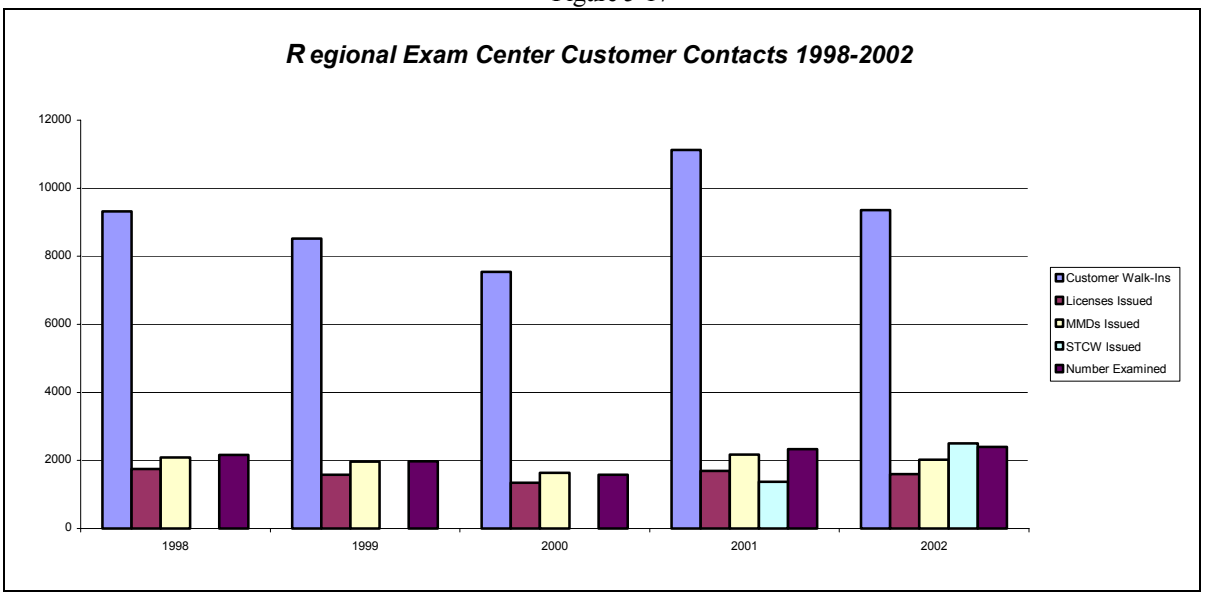
The use of dangerous drugs and alcohol in the workplace continues to pose a significant risk to passenger and crew safety in the marine industry. The Coast Guard is seriously committed to eliminating this risk, and is actively promoting and enforcing the chemical testing regulations. In 1995, a Coast Guard Drug and Alcohol Program Inspection (DAPI) program was established in an effort to increase compliance among the marine industry in respect to the chemical testing regulations. The MSO Puget Sound Drug and Alcohol Program Inspectors visit marine employers within the District to ensure compliance with the chemical testing regulations. The scope of the inspections include required recordkeeping and reporting, specimen collection, Medical Review Officer activities, employee assistance programs, proper designation of crewmembers to be tested, and proper conduct of required tests.

The purpose of the DAPI is twofold. First, it is to educate and assist marine employers in developing a correct chemical testing program, and secondly, to enforce the chemical testing regulations.

Licensing

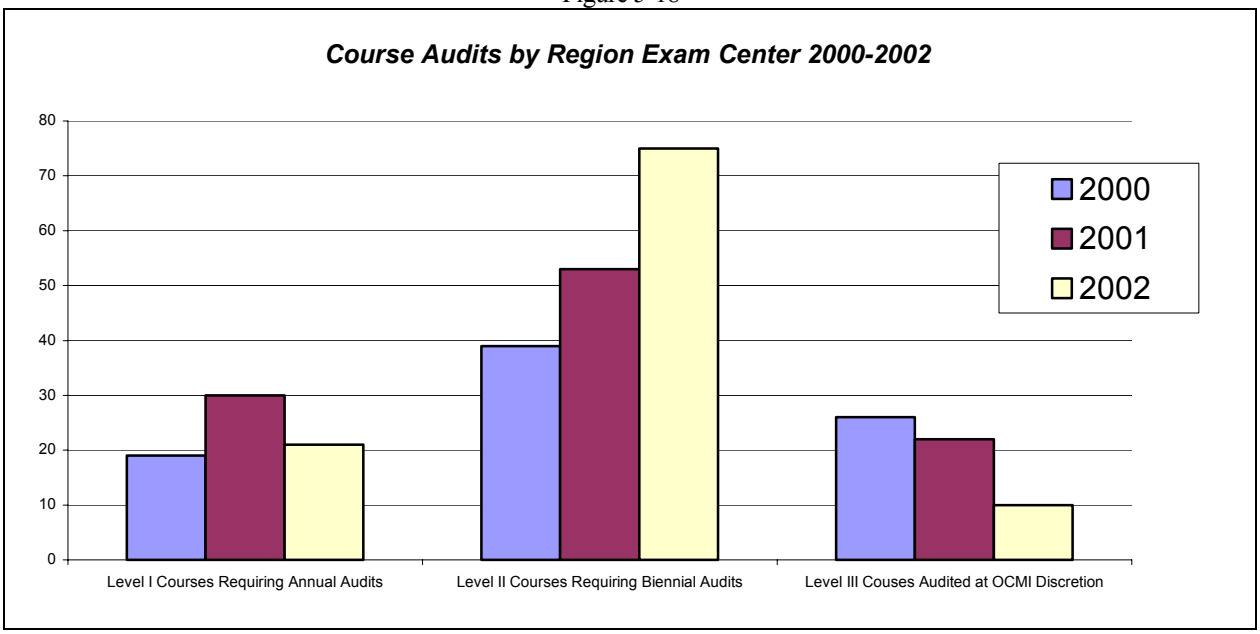
By ensuring that mariners applying for credentials meet the standards, including required levels of maritime knowledge and experience, passing a background check and a drug screen, the likelihood of them being involved in a casualty is reduced. Figure 5-17 shows the number of visitors to the Regional Exam Center annually. These visitors range from those picking up application forms for a license or merchant marine document, to those who've been evaluated and approved to sit for an examination, to those seeking issuance or renewal of their credentials. The number of merchant marine documents, licenses, and certificates issued under the international Standards for Training, Competency and Watchkeeping (STCW) and the number of individuals taking examinations is also shown. The REC is also responsible for overseeing organizations offering Coast Guard approved training courses. These courses are required for mariners to obtain their credentials. Such oversight ensures the uniformity of similar courses, and that the course is being taught as approved. Audit frequencies (e.g. annual or biennial) depend on course levels assigned by the National Maritime Center.

Figure 5-17



Note: REC Puget Sound did not measure STCW certificate issuance in a separate category until the last four months of 2001. However, STCW certificates were being issued in conjunction with certain licenses and documents that required them. The sudden spike in walk-in customers in 2001 is due to the February 2002 requirement for STCW Certification. Beginning in June 1997 all Regional Exam Centers began enforcing the enhanced training requirements imposed on mariners subject to STCW. The enhanced training required by the STCW is intended to reduce, or help mitigate casualties caused by human error.

Figure 5-18



Exercises

Exercises are critical elements to preparing for response. The execution of the exercises ultimately works to prevent and mitigate consequences of any particular incident. Therefore, field exercises and table top exercises that drill procedures and policy, communications, command and control are all vital preventative efforts. These exercises identify lessons learned, shortfalls, successes, etc. that will help improve the region's response posture during a real world event. Examples of recent exercises include:

TOPOFF II - The Coast Guard participated in the largest domestic terrorism response drill in May of 2003 which exercised command, control and communication under the new Department of Homeland Security.

WSF Vessel Hijacking Exercise – Tested WSF command, control and communications and also exercised the King County SIRT Team response to vessel hijacking.

Passenger Vessel Seminar – Mass Rescue Table Top Exercise being used as the stepping stone towards the development of a Puget Sound Port Response Network.